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10/629,967	07/30/2003	Seh W. Kwa	1000-0012	9542

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EXAMINER	
PHAM, TUAN	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,967	KWA ET AL.	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 24-36* is/are rejected.

7)☒ Claim(s) *22 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification should be included background of the invention and summary of the invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (Pub. No.: 2002/0141349, hereinafter, "Kim").

Regarding claim 11, Kim teaches an apparatus (see figure 3, base station 30) comprising:

an interconnect to provide communication between at least two components of said apparatus (see figure 3, reception processor 31 is interconnect with interference level detector 32); and

a data rate adjustment unit to adjust a data rate associated with said interconnect based on interference within said apparatus (see figure 3, processor 35, col.4, [0047], col.6, [0079]).

Regarding claim 15, Kim further teaches said interconnect is coupled between a wireless module and another component within said apparatus (see figure 3, reception processor 31 is interconnect with interference level detector 32).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 7-10, 16, 25-26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213).

Regarding claims 1, 16, 26, and 30, Prismantas teaches an apparatus comprising (see figure 1, hub 11):

an interference detector to detect interference within wireless circuitry (see figure 2, col.2, [0020]); and

a spectral shaping unit (read on block 205) to selectively modify at least one transmission characteristic associated with said apparatus in response to detection of interference by said interference detector (see figure 2, col.3, [0027-0028]).

It should be noticed that Prismantas fails to teach interconnect of the apparatus. However, Evoy teaches such features (see [0036]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Evoy into view of Prismantas in order to connect peripheral component to a central processing complex as suggested by Evoy at column 1, [0006].

Regarding claim 7, Evoy further teaches PCI Express interconnect (see [0036]).

Regarding claim 8, Evoy further teaches bus (see [0069]).

Regarding claim 9, Prismantas further teaches said interconnect provides communication between said wireless circuitry and a host chip set (see figure 1, radar detector 14, processor 101, there is the interconnect between the element 14 and element 101).

Regarding claim 10, Prismantas further teaches modem (see figure 1, modem 105-1).

Regarding claim 25, Prismantas further teaches adjusting includes selecting at least one new transmission characteristic value for use with said interconnect based on a wireless application presently being executed (see 2, box 205 is selecting narrow band or wide band).

6. **Claims 2, 4-5, 17, 19-20, 27-28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213) as applied to claims 1, 16, 26, and 30 above, and further in view of Miyoshi et al. (US Pub. No.: 2003/0022629, hereinafter, "Miyoshi").**

Regarding claims 2 and 17, Prismantas and Evoy, in combination, fails to teach an error rate unit to determine an error rate associated with said wireless circuitry, said error rate being related to interference within said wireless circuitry. However, Miyoshi teaches such features (see figure 1, error detection 118, [0042]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyoshi into view of Prismantas and Evoy in order to detect the error signal as suggested by Miyoshi at column 3, [0042].

Regarding claims 4, 19 and 28, Miyoshi further teaches a throughput measurement unit to determine a throughput associated with said wireless circuitry, said throughput being related to interference within said wireless circuitry (see [0149]).

Regarding claims 5, 20, and 31, Miyoshi further teaches said at least one transmission characteristic associated with said interconnect includes a data rate of said interconnect (see [0004]).

Regarding claim 27, Miyoshi further teaches measuring and adjusting until said interference-related parameter does not meet said predetermined criterion (see [0004]).

7. **Claims 3, 18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213) as applied to claims 1, 16, and 26 above, and further in view of Barilovits (U.S. Pub. No.: 2004/0097251).**

Regarding claims 3, 18, and 29, Prismantas and Evoy, in combination, fails to teach said interference detector includes a ranging unit to determine a communication range associated with said wireless circuitry, said communication range being related to interference within said wireless circuitry. However, Barilovits teaches such features (see [0005]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barilovits into view of Prismantas and Evoy in order to communication in a short range.

8. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213) as applied to claim 1 above, and further in view of Kovalan et al. (U.S. Patent No.: 6,453,374, hereinafter, "Kovalan").**

Regarding claim 6, Prismantas and Evoy, in combination, fails to teach a slew rate. However, Kovalan teaches such feature (see col.5, ln.63-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kovalan into view of Prismantas and Evoy in order to reduce cost for transmission as suggested by Kovalan at col.1, ln.45-58.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (Pub. No.: 2002/0141349, hereinafter, "Kim") in view of Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow").

Regarding claim 12, Kim disclose invention, but fails to disclose adjust a slew rate associated with said interconnect based on interference within said apparatus. However, Clow teaches such feature (see col.3, ln.5-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Clow into view of Kim in order to reduce the interference as suggested by Clow at col.3, ln.7-14.

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (Pub. No.: 2002/0141349, hereinafter, "Kim") in view of Evoy (U.S. Pub. No.: 2006/0059213).

Regarding claim 13, Kim disclose invention, but fails to disclose PCI Express Interconnection. However, Evoy teaches such feature (see [0036]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Evoy into view of Kim in

order to connect peripheral component to a central processing complex as suggested by Evoy at column 1, [0006].

Regarding claim 14, Evoy further teaches bus (see [0069]).

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213) as applied to claim 16 above, and further in view of Kato et al. (US Pub. No.: 2004/0005885, hereinafter, "Kato").

Regarding claim 21, Prismantas and Evoy, in combination, fails to teach adjusting includes initially changing a data rate of said interconnect from a first rate to a second rate in response to said determination and then changing said data rate from said second rate back to said first rate a predetermined time period later. However, Kato teaches such features (see col.2, [0015]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kato into view of Prismantas and Evoy in order to reduce cost for transmission as suggested by Kovalan at col.1, ln.45-58.

12. Claims 24 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Evoy (U.S. Pub. No.: 2006/0059213) as applied to claims 16 and 30 above, and further in view of Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow").

Regarding claims 24 and 32, Prismantas and Evoy, in combination, fails to teach adjust a slew rate. However, Clow teaches such feature (see col.3, ln.5-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Clow into view of Prismantas and Evoy in order to reduce the interference as suggested by Clow at col.3, ln.7-14.

13. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Ginzburg et al. (US Pub. No:2004/0264396, hereinafter, Ginzburg").

Regarding claim 33, Prismantas teaches an apparatus comprising (see figure 1, hub 11):

an interference detector to detect interference within wireless circuitry (see figure 2, col.2, [0020]); and

a spectral shaping unit (read on block 205) to selectively modify at least one transmission characteristic associated with an interconnect of said apparatus in response to detection of interference by said interference detector (see figures 1& 2, col.3, [0027-0028]).

It should be noticed that Prismantas fails to teach a dipole antenna element coupled to said wireless circuitry to facilitate communication with a remote wireless entity. However, Ginzburg teaches such features (see figure 1, antenna 104&114, col.2, [0015]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ginzburg into view of Prismantas in order to receive and transmit the RF signal.

Regarding claim 34, Prismantas further teaches modem (see figure 1, modem 105-1).

14. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Ginzburg et al. (US Pub. No:2004/0264396, hereinafter, Ginzburg") as applied to claim 33 above, and further in view of Kim et al. (Pub. No.: 2002/0141349, hereinafter, "Kim").

Regarding claim 35, Prismantas and Ginzburg, in combination, fails to teach adjust a data rate. However, Kim teaches such feature (see [0047-0048).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim into view of Prismantas and Ginzburg in order to improve the transmission in the communication.

15. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (U.S. Pub. No.: 2002/0155811, hereinafter, "Prismantas") in view of Ginzburg et al. (US Pub. No:2004/0264396, hereinafter, Ginzburg") as applied to claim 33 above, and further in view of Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow").

Regarding claim 36, Prismantas and Ginzburg, in combination, fails to teach adjust a slew rate. However, Clow teaches such feature (see col.3, ln.5-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Clow into view of Prismantas and Ginzburg in order to reduce the interference as suggested by Clow at col.3, ln.7-14.

Allowable Subject Matter

16. Claims 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Walton et al. (U.S. Pub. No. 2003/0035491), Gardner et al. (U.S. Pub. No. 2003/0045237), and Joshi et al. (U.S. Pub. No. 2005/0250521) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
April 15, 2006
Examiner

Tuan Pham

Matthew Anderson
Supervisory Patent Examiner
Technology Center 2600